

What is claimed is:

1. A system for maintaining at least partial blood flow within a heart, comprising:

5 a conduit introduced into the heart through at least one of the wall of the right atrium, the wall of the right ventricle, the wall of the pulmonary artery, the wall of left atrium, the wall of the left ventricle, and the wall of the aorta;

10 said conduit including a blood inlet port and a blood outlet port, said blood inlet port and said blood outlet port being positioned on either side of at least one of the tricuspid valve, the pulmonary valve, the bicuspid valve, and the aortic valve; and

15 a blood pump disposed within said conduit for selectively transporting blood from said blood inlet port to said blood outlet port of said conduit.

5 2. The system of claim 1 and further, wherein said conduit is positioned within the heart such that said blood inlet port is disposed within the right atrium, said blood outlet is positioned in the pulmonary artery, and wherein said pump may be selectively operated to maintain at least partial blood flow through the protected blood flow path established within the conduit.

5 3. The system of claim 1 and further, wherein said conduit is positioned within the heart such that said blood inlet port is disposed within the left atrium, said blood outlet is positioned in one of the left ventricle and the aorta, and wherein said pump may be selectively operated to maintain at least partial blood flow through the protected blood flow path established within the conduit.

4. The system of claim 1 and further, wherein said conduit is positioned within the heart such that said blood inlet port is disposed within the pulmonary artery, said blood outlet is positioned in one of the

5 right ventricle and right atrium, and wherein said pump may be selectively operated to maintain at least partial blood flow through the protected blood flow path established within the conduit.

5. The system of claim 1 and further, wherein said conduit is positioned within the heart such that said blood inlet port is disposed within the right atrium, said blood outlet is positioned in the right ventricle, and wherein said pump may be selectively operated to maintain at least partial blood flow through the protected blood flow path established within the conduit.

6. The system of claim 1 and further, wherein said conduit is positioned within the heart such that said blood inlet port is disposed within the left atrium, said blood outlet is positioned in the left ventricle, and wherein said pump may be selectively operated to maintain at least partial blood flow through the protected blood flow path established within the conduit.

7. The system of claim 1 and further, wherein said pump is one of an axial flow blood pump and a mixed flow blood pump disposed within the conduit for transporting blood from said blood inlet to said blood outlet.

8. The system of claim 1 and further, including a control circuit forming part of said conduit to allow a user to manually or automatically control the speed and rotation of said pump.

9. The system of claim 1 and further, wherein said conduit includes at least one pre-formed curve along its length.

10. The system of claim 1 and further, wherein said conduit comprises an outer cannula and an inner cannula.